6 P No-48 I.No-6.21	Supplying, fixing and wiring rotary selector switch suitable for Voltmeter.	Each	1	140.00	140.00
7 P.No-48 I.No-6.24	Supplying, fixing and wiring 0 to 1500amps CT operated AC analog type Ammeter without CT	Each	1	415.00	415.00
8 P.No-48 I.No-6.25	Supplying, fixing and wiring rotary selector switch suitable for Ammeter.	Each	2	172.00	344.00
9 P.No-48 I.No-6.32	Supplying, fixing and wiring 50/5 to 400/5Amps 5VA burden Current Transformer. Class 0.5 accuracy with Tape Wound.	Each	18	483.00	8694.00
10 P.No-47 I.No-6.19	Supplying, fixing and wiring earth leakage relay with core balanced current transformer suitable for single phase 50 Hz AC with latest microcontroller based, digital readout of percentage leakage current, programmable delay/auto/manual reset facility suitable to mount on DIN rail/ flush mounting on panel board.	Each	1	7998.00	7998.00
11 P No-49 I.No-6.38	Supplying ..... amps rated 3phase with neutral bus bar using required capacity electrolytic aluminum strips covered with heat shrinkable coloured PVC sleeve, mounted on phenolic/FRP/DMC insulator which are mounted on powder coated 40x6mm M.S.flat frame work in existing panel board. The bus bar shall have suitable holes for termination of incoming and outgoing cables as per IS specification with necessary bolts, nuts and washers etc., complete. 6.38.1) 100Amps 4x30x6mm Aluminum Strips	mtr	30	2135.00	64050.00
	6.38.2) 250Amps 4x30x10mm Aluminum Strips	mtr	16	2942.00	47072.00
12 P.No-49 I.No-6.40	Fabricating supplying and mounting MS box made out ... SWG suitable for floor / wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished with 2 coats of red oxide primer paint and finally finished with approved colour enameled metal paint etc., complete. 6.40.1) 14SWG	Sqcms	1262986	0.37	467304.82
13 P.No-49 I.No-6.41	Supplying and fixing angle iron frame work fabricated out of M.S. angle iron.. and M.S. flat ... with bolts, washers etc., and painted with 2 coats of red oxide and then two coats of approved paint. 6.39.1) 40x40x6mm	mtr	200	263.00	52600.00
14 P.No-45 I.No-6.7.3	Supplying & fixing of Porcelain fuse channel with cut out on existing wooden/panel using necessary nuts, bolts and washers. 6.7.3) 63Amps	Each	30	234.00	7020.00
	6.7.4) 100Amps	Each	45	360.00	16200.00
15 32/9	Supplying and fixing electro mechanical timer (without contactor) using necessary bolts, nuts and washers etc.,Group 'A'	Each	15	4200.00	63000.00
16 P.No-46 I.No-6.12	Supply and fixing of 4pole power contactor with NO/NC contacts on existing wood/panel board using necessary bolts, nuts, washers and wiring etc., complete with AC-3 Rating and as per IS-13947. 6.12.3) -60-70Amps	Each	15	4774.00	71610.00

17 P.No-02 I.No-1.3	Supplying heavy gauge PVC Conduit Pipe ....dia .....mm thick with suitable size bends, metal junction boxes adhesive paste etc., by groove cutting in the wall and fixing by bracing U or J hooks and cement plastering up to the wall surface and run with 18 SWG GI fish wire run throughout the conduit wherever necessary.1.3.1)19/20mm dia 2mm thick	mtr	250	56	14000.00
	1.3.2) 25mm dia 2mm thick	mtr	130	58	7540.00
	1.3.4) 40mm dia 2.5mm thick	mtr	250	101	25250.00
18 P.No-06 I.No-2.5	Wiring for lighting/power circuit using one of FRLS PVC insulated 1100V grade, multistrand Copper with low conductor resistance single core wire in open or concealed system of wiring with specified IS-694:1990 & confirming to GTP of GROUP -A. 2.5.3) 2.5 sqmm	Per Mtr.	2500	29.20	73000.00
	2.5.4) 4 sqmm	Per Mtr.	650	42.10	27365.00
	2.5.5) 6sqmm	Per Mtr.	500	63.80	31900.00
19 P.No-56 I.No-7.4	Supplying of 1.1 KV LT UG cable having aluminum conductor PVC insulated, extruded inner sheathed, galvanized, steel strip (except 2CX10Sq.mm wire armoured) confirming to IS-3975:1990 (No. of Strip indicated in GTP) & extruded PVC outer sheathed armoured cable with specified IS-1554 Part-1:1988 & confirming to GTP of GROUP-A. 7.4.2) 4 core 10 sqmm	mtr	400	118.80	47520.00
	7.4.4) 4 core 16 sqmm	mtr	3000	140.40	421200.00
	7.4.5) 3.5 core 25 sqmm	mtr	1000	165.60	165600.00
	7.4.6) 3.5 core 35 sqmm	mtr	900	204.00	183600.00
	7.4.7) 3.5 core 50 sqmm	mtr	950	265.00	251750.00
	7.4.12) 3.5 core 185 sqmm	mtr	425	816.00	346800.00
20 P.No-61 I.No-7.8	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required.On wall /Structure 7.8.1) 6 sqmm to 16 sqmm	mtr	3400	10.80	36720.00
	7.8.7) 25 sqmm to 75 sqmm	mtr	2850	34.80	99180.00
	7.8.A.4)185sqmm to 240Sqmm	mtr	425	27.00	11475.00
21 P.No-62 I.No-7.9.1	Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete.(As per Civil SR KSRB I-2, P-7) 7.9.1) In soil (ordinary)	mtr	4500	78.00	351000.00
	7.9.2) In soil (Hard soil)	mtr	1500	106.00	159000.00
	7.9.5 C.C. cutting	mtr	500	212.00	106000.00
22 P.No-62 I.No-7.14	Supplying and fixing of heavy duty cable glands suitable for UG cable of 1.1 KV class (metal only) 7.14.2) 25mm dia	Each	40	86.00	3440.00
	7.14.3) 32mm dia	Each	10	122.00	1220.00
	7.14.5) 50mm dia	Each	10	264.00	2640.00
23 P.No-64 I.No-7.21	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of the following sizes.7.21.5)10 sqmm	Each	790	7.65	6043.50
	7.21.6)16 sqmm	Each	333	11.31	3766.23
	7.21.7) 25 sqmm Long Barrel	Each	140	20.59	2882.60
	7.21.8) 35 sqmm Long Barrel	Each	36	35.72	1285.92
	7.21.9) 50 sqmm Long Barrel	Each	100	62.40	6240.00
	7.21.14) 185 sqmm Long Barrel	Each	16	338.52	5416.32
24 P.No-20 I.No-4.4	Supplying and fixing cast Aluminum round or oblong type bulk head fitting with GI wire guard, glass cover with 15Watts 230V CFL lamp.	Each	24	952.00	22848.00

25 P.No-42 I.No-39	Supply and Installation / Fixing / Provision of Pole box with HRC Fuse / MCB provision and suitable connector / terminal for 3 Ph / 1 Ph connections with Loop-In & Loop-Out terminals for 10 Sqmm / 25 Sqmm 3.5 C Al/Ar / Cu/Ar Cable and branch out 2.5 Sqmm 2 core Al/Cu PVC Insulated cable, enclosed in a Thermoplastic, Polystyrene enclosure, which should be shock proof, safe, IP65(Weather Proof), rust proof, dust proof, water proof having Internally Embedded Gasket with provision for cable entry through IP65 Thermoplastic, polyamide glands and/or grommets. a) 200mmx200mmx98mm	each	353	925.00	326525.00
26 P.No-55 I.No-7.1	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipment's on the meter board using 40mm dia 2.90mm thick GI pipe 2.5 mtr long buried in a pit ... The pit should be filled with equal proportion of salt and charcoal 150mm all-round the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and check nuts etc., the pipe shall have 16 through holes of 122 mm dia	No	20	2727.00	54540.00
27 P.No-55 I.No-7.3	Supplying and running of Gi/Copper strips for grounding connections, using necessary fixing materials as required. GI strip 7.3.1)-25x3mm	Mtr	200	77.00	15400.00
28 P.No-63 I.No-7.2	Supply and laying double walled corrugated (DWC) HDPE Pipe including all necessary connecting Sockets/Couplings/Tees/Bends/End-caps of same materials in existing trench as per IS 14930 part -II suitable for drawing underground cables. 7.20.1)-40mm OD / 32mm ID	Mtr	100	98.00	9800.00
29 P.No-106 I.No-16.28	Painting of existing street light pole after scrapping the old paint and painted with suitable colour enamel/Silver paint including coping/footing of the pole.16.28.1) Upto 5Mtr street light pole.	No	300	500.00	150000.00
	16.28.2) Above 5.5 to 7.5Mtr street light pole.	No	50	620.00	31000.00
	High Mast and its accessories				
30 P.No-23 I.No-4.18	Supplying High pressure ..... Metal halide flood light luminary suitable for use with high pressure metal halide lamp with integrated control gear. The fitting shall be non corrosive high pressure die cast aluminum housing powder coated with toughened and heat resistant glass with low copper content black/grey powder coated paint finish with EPDM gasket. Reflector shall be made of high purity pre-anodized aluminum. Cable entry through a cable gland with toggle clips. IP 65 protection for both and optical and electrical compartment. Bottom cover may be with polycarbonate / tempered / toughened glass. Luminaire efficiency should be > 60% and ambient temperature > 35 deg C. High intensity discharge Electro magnetic ballast with copper winding of Octocyclic winding coil. Class H insulated dual coated copper wire. Compliance to IEC 61347-2-9 Safety and IEC 60923-performance. Winding temperature for HID ballast tw = 130 deg C and temperature rise ?T - 70 deg C. Luminaire shall be suitable to operate on 230/250Volts 50Hz AC supply finish including wiring, ignitor, condenser. SS Toggles for opening front hingeable glass, prewired to terminal block. 4.18.5)--2x400Watts	Each	22	22800.00	501600.00

31 35/5.14.6	Fabricating, supplying and erection of ...Mtrs long hot dip Galvanized Octagonal pole with BSEN 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with door opening arrangements, including suitable boards, Bakelite sheet and MCBs as per IS specifications suitable to withstand the wind speed of 47 m/sec for .....Mtrs pole in single section and single joint welded as per IS 9595/IS 10178AWS having dimensions bottom .....mm, top....mm with 3mm thick, suitable base plate and 4Nos of ..... long J bolts along with template and the pole shall be hot dip galvanized in single dipping with not less than 65micron as per ASTM-A123 and 153 etc., (excluding foundation) as per drawing appended. 8 meters - Top 70mm and bottom 135mm dia	each	3	13932	41796.00
32 P.No-36 I.No-5.17	Fabrication, Supplying, Erection, Testing and Commissioning of .....Mtrs long polygon high mast with Single / Multiple telescopic sections having, (minimum overlap distance of 1.5 times of top section) thickness as per BSEN 10025 grade S 355 JO /ASTM A572-50 steel sheet plate for shaft suitable to withstand a wind velocity of 47 m/sec as per IS 875 part 3(as per GA Drawing).Base plate as per IS 2062/ASTM A572-50. The mast shall be Galvanized in single Hot-dip as per BSEN ISO 1461/ASTM A123 with an average 70 microns as per IS 2629, and welded as per BS 5135 Single L-Seam joint. The mast shall have 2way head frame with die cast LM-6 pulleys, stainless steel axle, Phosphorus Bronze bearing bush press-fitted with separate guides for 2 runs of 5mm dia, stainless steel wire rope of AISI 304grade 7/19-core, (Factor of Safety as per TR no-7). 2.5sqmm EPR insulated PCP sheathed trailing power cable housed inside the bottom shaft of mast with door having locking arrangement. The mast shall have power tool operating on 230/ 415V, 50Hz, 1/3 phases reversible geared motor. The mast shall have lantern of 2 segments, suitable dia with max load carrying capacity as per IS 1239. The mast shall be erected on existing RCC footing. The mast shall be supplied with 3mm thick template, lightning arrester of 1.2m length galvanized pipe	Each	3	120000.00	360000.00
33	KSRB 2-2.2 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in hard soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(b) / 2.3.5 (Item No. - 2.4, Page No. 5)	Cum	48	283.02	13584.96
34	KSRB 2.3 : Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20 cms. in depth, compacting each deposited layer by ramming after watering with lead upto 50 m. and lift upto 1.5 m. including cost of all labour complete as per specifications. specification. No. KBS 2.9 (Item No. - 2.10, Page No. 6)	Cum	30	127.20	3816.00
35	KSRB 2.8 : Providing and Filling in foundation with granite / trap broken metal 100mm. and down size, with approved sand including hand packing, ramming, watering, including cost of all materials and labour with all lead and lift. complete as per specifications. specification. No. KBS (Item No. - 2.15, Page No. 6)	Cum	9.0	2133.78	19204.02

36	KSRB 4-1.3 : Providing and laying in position plain cement concrete of mix 1:4:8 with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregates @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2 (Item No. - 4.3, Page No. 12)	Cum	3.48	4976.70	17318.92
37	KSRB 4-1.5 : Providing and laying in position plain cement concrete of mix M20 with OPC cement @ 300kgs, with 20mm and down size graded granite metal coarse aggregates @0.69cum and fine aggregtes @ 0.43cum, with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2 (Item No. - 4.5, Page No. 12)	Cum	13.14	5880.88	77274.76
38	KSRB 4-6.1 : Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specificaitons. Specification No. KBS 4.6.2 (Item No. - 4.28, Page No. 15)	Sqm	30.24	239.56	7244.29
39	KSRB 4.9.1 : Providing mild steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3 (Item No. - 4.45, Page No. 17)	q	5.94	6368.48	37828.77
40	KSRB 15.3.1 Providing 12mm thick cement plaster in single coat with cement mortar 1:3, to brick masonry including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. (Item No. - 15.9, Page No. 109)	Sqm	14.7	181.26	2664.52
	SUB TOTAL D:				**3191235.69**
	TOTAL				**18267163.52**
	KRIDL Charges @ 8 %				1461373.08
	1% Labour Cess On Sub Total	**Sub Total**		19728536.60	197285.37
	Bescom Deposit and Miscellaneous				74178.04
	GRAND TOTAL				**20000000.00**

CERTIFICATE :-

0.00

1. The place was inspected and the work is essential.
2. The provision made in the estimate are adequate and necessary and the work comes in the BBMP limit and is legitimate Charges on the BBMP funds.
3. The estimate is based on KPWD (Ele) S.R.2014-15 Rates. Effective from 1-08-2014 , BESCOM SR, KPWD Civil SR 2016-17 and KPWD (Ele) S.R.2010-11

Assistant Engineer (Ele)
RR Nagara Zone

Asst. Executive Engineer (Elecl)
RR Nagara Zone

Administrative Sanctioned for Rs. 2000000.00
Rs. Two crore only
under P2215.
page 20 of 21.
56/16-17.
56/16-17. 20/12/16.

EXECUTIVE ENGINEER (ELECL)
RR Nagara Zone, BBMP

TECHNICAL SANCTION
Rs: 2,00,00,000/- (Rs Two crore only) is accorded
under the head: P-2415-T&I-16-17
By CE(R.R.N.): 397/16-17
Registered as CE (R.R.N) No: ..... subject to conditions contained in enclosed memo
No: 397/16-17 Date: 11/1/17